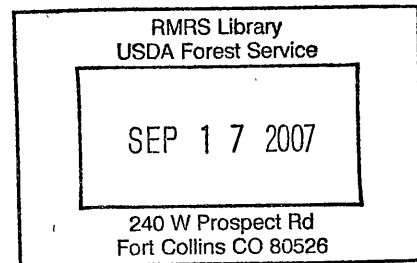


# Visitor Experience Indicators: A Workshop for Eastern Canadian National Parks

## Final Report



**Visitor Experience Indicators:  
A Workshop for Eastern Canadian National Parks**



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Technical Completion Report

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## **Acknowledgements**

The production of this report, as well as the underlying workshop, represents a cooperative effort among Parks Canada Agency staff, scientists at the Aldo Leopold Wilderness Research Institute, and faculty and students in the Department of Society and Conservation at The University of Montana. The report culminates three years of research, development, deliberation and application of concepts and pragmatics oriented toward maintenance of recreation opportunities in the Eastern Arctic National Parks. The research involved a number of visitors, scientists and local residents; the authors acknowledge that their cooperation was essential to the successful completion of the project.

The workshop could not have been organized without the parties developing the agenda cooperatively and the output of the workshop was highly dependent on the enthusiastic participation of about 22 individuals. We thank all these for their assistance and contributions. In addition the authors extend their appreciation to our administrative assistant, Lynn Gruszie, for assisting in production of this report. All photographs courtesy of Stephen McCool.

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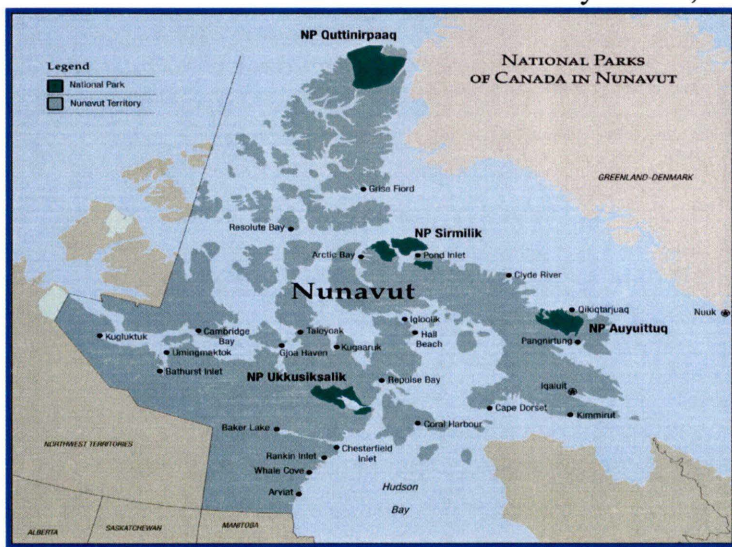
## Overview, Rationale and Purpose of Workshop

As the Parks Canada Agency strives to meet its obligations to maintain the ecological integrity of its parks and to provide opportunities for memorable recreational experiences for its visitors, it also has a growing need to understand the effectiveness of management actions in achieving goals. Assessing effectiveness is particularly challenging in the four National Parks in the eastern Arctic--Sirmilik, Quttinirpaaq, Auyuittuq, and Ukkusiksalik—where use levels are low, where locations are remote, and where information about the character of the opportunities sought is limited.

In order to address this situation, Parks Canada Agency (PCA) initiated a three-phased research and development project to better understand the interactions of park visitors in Quttinirpaaq and Auyuittuq National Parks and to ensure that wilderness experience goals for these parks would be attained. Although use levels in both parks are relatively low, they are the most regularly visited of the four in the eastern arctic. Auyuittuq has subsistence use as well as recreational use, an unusual situation for North American national parks but not necessarily for parks in arctic regions. While use levels may be low, the relatively low level does not necessarily

mean that recreation management issues there are any less compelling than in more visited parks. Therefore, developing a protocol based on desired experiences is particularly challenging.

In summary, these parks are confronted with a number of questions that must be resolved by management: What opportunities do recreationists seek? How do these opportunities relate to existing park specific management objectives/goals? What opportunities for various experiences does PCA want to provide as it moves towards an agency goal of “memorable experiences?” How does it provide opportunities for these experiences? How would it know if settings in parks



*Location of eastern arctic national parks in Territory of Nunavut*



were providing the opportunities desired?

The three-phased research design ultimately assists PCA in addressing these questions, and also in developing indicators that could be used to monitor the experiences and opportunities sought by visitors. Phase 1 of the research involved mapping the dimensionality of landscape interactions of park visitors—including recreationists, local subsistence users and scientists who conduct research in the parks. The results of this research are reported in Lachapelle and others (2004).

Phase 2 included only recreational visitors, because these are most likely to be impacted by park



management decisions regarding rules and regulations, use density and facilities. In Phase 2, visitors were asked to complete a questionnaire during the de-registration process following completion of their visit to Auyuittuq. The questionnaire asked respondents about the importance of the various dimensions identified in Phase 1, their reactions to possible management strategies and preferences for certain setting conditions. Results are reported in Lachapelle and others (2005).

*Serenity/Freedom was identified as the most important dimension of a recreational experience in Auyuittuq. Allowing people to make their own decisions about experiences is thus important.*

Phase 3 (the subject of this report) uses the results of the first two phases to identify a set of tentative indicators. The process used to identify indicators used a workshop as described below. Because of the

decisions made at the workshop and the relatively low sample size experienced during Phase 2, a new Phase 4 has been added to the project. This phase involves sampling visitors in the 2005 visitation year using a questionnaire modified from the 2004 study. Results will be reported later.





*Challenge/Adventure, the second highest dimension rated by visitors, is experienced here as a hiker negotiates a difficult stream crossing.*

This somewhat involved process was developed to provide a scientific foundation for the important decisions to follow. Identifying the range of desired experiences, the types of experiences to be provided and variables that would “indicate” if those experiences were being attained involve a number of both technical and value judgments (Krumpe and McCool 1998). The significance of these decisions, and therefore of the process used to arrive at them is particularly notable, given PCA’s recent

decisions to provide opportunities for memorable experiences. The workshop was an initial attempt in defining what opportunities should be provided and identifying how to determine if the experiences facilitated by those opportunities actually occurred.

The workshop was held at the PCA field office in Iqaluit, Nunavut June 28-29, 2005. Participants included scientists, managers and tourism officials familiar with arctic landscapes and experiences, PCA policy and program direction and the parks themselves. The participant list is shown in Appendix A.

The workshop was designed to ensure that participants had a common understanding of (1) the geographical and policy context; (2) the notion of indicators, and (3) the research results from Phases 1 and 2. Once this ground was covered, participants worked in small groups to identify prototype indicators and to develop the way forward. This approach thus allows archiving the rationale for different aspects of the workshop. The workshop agenda is shown in Appendix B. This report is organized loosely around the agenda and describes the



### Workshop Principles:

*Understand and Develop Clarity*

*Brainstorm for Creativity*

*Evaluate Suitability*

workshop and its outcomes.<sup>1</sup> Specific notes from the workshop are shown in Appendix C.

The workshop used three specific principles to organize its effort and develop outputs that would be appropriate and salient to PCA management in this and other park contexts. First, the workshop sought to

*understand and develop clarity* about indicators and how they fit into the PCA context and current program direction about visitor experiences. Second, workshop participants used their experience, expertise and the previous phases of the research to *brainstorm* potential indicators. This brainstorming was designed to not only maximize participant creativity but to utilize it as well. Third, an initial *evaluation* of potential indicators was conducted by participants to select several indicators for closer examination during the workshop. These initial indicators are shown in Appendix D. These principles thus provided the intellectual foundation for the workshop: start with broad concepts and then gradually narrow the topics down to specific indicators that could be used to monitor conditions.



*The Arctic, as an experience dimension itself, was an important element of visitor experiences, suggesting that Arctic settings are unique.*

### Indicator Background

Indicators are variables that can be measured and used to assess managerial progress. More specifically, indicators serve three major functions: (1) they depict existing conditions within the parks—experiential, biophysical and managerial—for systems that are often complex and interdependent. In this sense, indicators reduce complexity to a limited number of more

<sup>1</sup> The report is in a sense an abstract of the workshop. The ideas expressed within this report were developed and presented by several different individuals in addition to the report authors. Please refer to the workshop agenda for the presenter identification.





*Learning about and appreciating nature is a significant dimension of the visitor experience.*

understandable observations; (2) indicators facilitate evaluation of managerial performance, that is, they help assess the effectiveness of actions and policies designed to correct a problem, sustain a value, or achieve a goal; and (3) indicators serve as early warning lights concerning impending changes in environmental and social systems (McCool and Stankey 2004). Within the context of arctic national parks and wilderness recreational experiences,

indicators thus inform managers about whether such experiences are occurring, how effective an action may be in maintaining these experiences or may suggest that desired conditions may be threatened by some process or event.

Monitoring of indicators is particularly critical in settings where the results of management actions are unclear or unknown, where existing conditions are close to the limit of change determined acceptable, or in places characterized by rapid change (National Park Service 1997). Arctic national parks qualify on all counts: the relationship between setting conditions or factors of influence and the experience opportunities they afford are not well researched, existing relatively low use levels can change proportionately very rapidly; and the setting attributes that facilitate or hinder construction of visitor experiences are unclear.

**What do indicators indicate?**

*Setting Conditions – attributes that facilitate or hinder visitor experiences*

*Experience Outcomes – what dimensions visitors actually experience*

*Threats – trends and driving forces than may endanger setting conditions*

Changes in indicator values detected within an adaptive managerial regime carry the potential to trigger policy responses and corresponding management actions. Such changes may themselves lead to other consequences. Because of the importance of monitoring, particularly in places such as the



Indicator Functions:

*Depict Existing Conditions*

*Evaluate Management Performance*

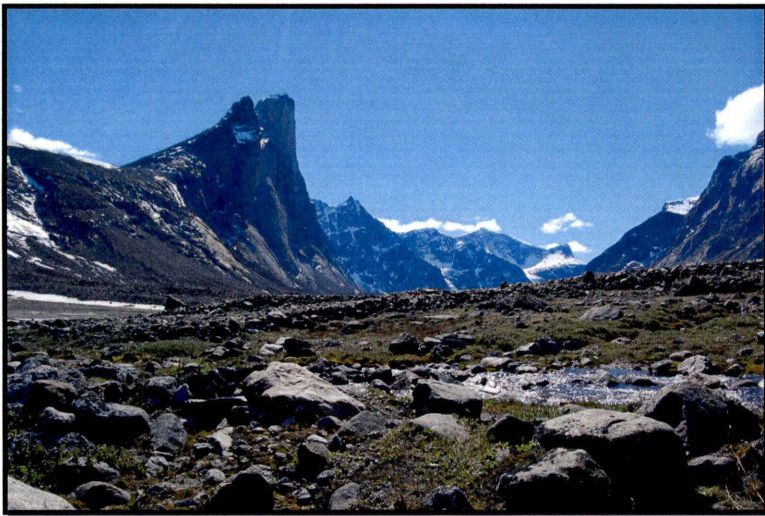
*Serve as Early Warning Lights*

arctic where knowledge about recreational experiences, effectiveness of management actions, and effects of recreation on the environment is limited, indicators serve a particularly significant role, far beyond their use as “just another variable” to monitor. Indicators, by their very nature, are managerially relevant and essential to good stewardship.

Indicators are needed for three specific reasons:

(1) they help address the scientific uncertainty surrounding wilderness management actions—not all actions will lead to the anticipated consequences and some will have unanticipated consequences; (2) using indicators forces managers to consider the larger context and think about the future—in particular, in playing “what if” scenarios; and (3) indicator information helps managers better understand if the goals they are mandated to meet have indeed been achieved.

There are many ways to classify indicators, but for the purposes of this report, we have identified the following types because of their relevancy to managing parks for wilderness experiences:



*Experiencing natural conditions is a major dimension of a visitor's experience.*

1. *indicators of setting conditions*—conditions are attributes that facilitate or hinder attainment of experiences, e.g., encounters with other groups at a campsite may hinder attainment of solitude;
2. *outcomes*—measures of the experience itself, e.g., how much solitude does the visitor perceive was actually attained in the experience?
3. *threats*—these involve trends or driving force that may endanger conditions, and in many cases they may include attributes not necessarily on site, e.g., increased air travel

to the arctic may lead to increases in park use levels, threatening the opportunity to achieve solitude.



Indicators must meet two types of criteria: (1) functional – which deal with the specific purpose of the indicator; and (2) design, which concern how the indicator will be measured.

In selecting an indicator, or set of indicators, there are two sets of criteria that must be considered: functional criteria—how well and what the indicator measures and design criteria—what variable makes a good indicator (Merigliano 1990; National Park Service 1989). Functional criteria include such questions as:

1. what is it that management wants to measure (conditions, outcomes, threats),
2. what function does the indicator serve,
3. how does the indicator fit in and inform management and
4. can a standard or limit of acceptability be established for the indicator.

Design criteria include the following:

1. quantifiable—can the indicator be measured on an ordinal or interval level?
2. reliable—does the indicator have good inter-observer consistency (e.g., different people measure the same thing)?
3. administrative feasibility—is the indicator efficient, effective and simple to measure
4. sensitivity—can the value of the indicator change following implementation of a management action?
5. appropriate scale—can the indicator be measured at a scale useful to management?
6. relevant—does the indicator measure some aspect of wilderness recreational experiences?
7. related—does the indicator focus on changes resulting from human use and management decisions?

### **Important Factors in Selecting Indicators**

A number of factors influence decisions agencies make about what recreational opportunities are provided within an area. These include legislation—in many cases an area may have a specific “organic” act that defines or describes a set of desired experiences—such as the US Wilderness Act which states that wilderness is to be



*A sixth dimension of visitor experiences concerns spirituality.*

managed in part for “outstanding opportunities for solitude or a primitive and unconfined type of recreation.” Agency program direction is another factor.

Another factor influencing identification of appropriate experiences and indicators is the extant scientific, technical and popular literature that may describe opportunities the public seeks. An example is the report by Kneeshaw and others (2003) that describes the dimensionality of experiences sought in Gates of the Arctic

National Park in the US. Public engagement processes may also reveal desired recreational experiences. All these areas are used by management to make decisions about what experience opportunities *should* be provided within a specific park.<sup>2</sup>

The sum of all these factors is eventually a decision about what experience opportunities should be provided within a park, and where within that park they should be provided, as there may be a diversity of opportunities within any given park. Those decisions themselves then influence the selection of indicators appropriate to the experience opportunities being provided. While the workshop focused on identifying indicators of the various dimensions of experiences sought by visitors in the two parks, park management must make a decision that those dimensions are desired ones.

New program initiatives brought forth by PCA indicate that management should be more concerned about the types of experiences visitors construct out of a visit as well as the effectiveness of management actions in providing opportunities for these experiences. The PCA mandate for managing parks now focuses on

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<sup>2</sup> We make the observation here that research describes what experiences visitors seek. That research however limited to a depiction of *what is*, not *what should be*. Managers make the decisions about what should be.



“appreciation and enjoyment in ways that ensure their ecological and commemorative integrity”. This mandate reinforces the agency’s charter as guardians, guides, storytellers and partners. PCA views itself fundamentally as a facilitator of opportunities for visitors to create experiences that are memorable and personally relevant.

The Third Minister’s Roundtable on Parks Canada<sup>3</sup> emphasized this policy when it noted

Recent Parks Canada Agency program direction calls for creating opportunities for “memorable experiences”. So, what are the dimensions of those experiences for eastern arctic national parks?

*The visitor's experience, the outcome of their visit, must become a primary consideration. This requires a shift from emphasizing the provision of services, facilities and programs in a way that meets only Parks Canada's goals and objectives to one where the visitors' needs and expectations becomes the focus.*

As a result of this roundtable, a recommendation was put forth to conduct visitor research to better understand the needs, expectations and behaviors of visitors. PCA has also committed to hiring a Chief Social Scientist to improve social science in the agency. arctic recreational experience occurring in ANP as shown in Table 1.<sup>4</sup> These findings indicate that visitors to these parks are interested in a variety of elements, and that the experience itself is multi-dimensional.

### **Visitor Experience Research in ANP**

Phase 1 of the research identified 11 dimensions of an arctic recreational experience occurring in ANP as shown in Table 1.<sup>5</sup> These findings indicate that visitors to these parks are interested in a variety of elements, and that the experience itself is multi-dimensional. While visitors described the spectacular beauty, unmodified nature and the remote and isolated character of the parks as significant attributes contributing to their experiences,

<sup>3</sup> Held February 20-23, 2005 in Ottawa.

<sup>4</sup> “Other-worldly” was also identified as a dimension among QNP visitors. Because of the lack of data in Phase 2 of the research supporting the workshop, it focused on ANP as the exemplar.

<sup>5</sup> “Other-worldly” was also identified as a dimension among QNP visitors. Because of the lack of data in Phase 2 of the research supporting the workshop, it focused on ANP as the exemplar.

**Table 1. Major dimensions of the visitor experience at Auyuittuq National Park (source: Lachapelle et al. 2004). The experience dimensions are listed in alphabetical order and are not intended to imply relationships or significance.**

Experience Dimension	Examples of this Dimension
Adventure / Challenge	Personal growth / Physical capability Negotiating river crossings / existing with polar bears
Arctic Setting	Scale and quality of landscape Uniqueness of location Isolation Unusual light
Culture	Interaction in communities Local control over management
Freedom	Number of rules and regulations Hiking or camping restrictions Flexibility to change plans
Humility / Spirituality	Connection to nature / Reflection Recognizing forces of nature
Learning	About local culture About personal abilities About nature About backpacking / outdoor skills
Naturalness	Concerns of ecological impacts Lack of infrastructure
Remoteness	Need for self-reliance Hazards of inaccessibility Expectation of rescue
Risk/Safety	Issues of polar bears and river crossings Use of facilities / technology (sat. phones, SSB)
Scenery	Extensive landscape Wildlife viewing Scale of mountains
Wildness	Hostile / extreme environment No human presence



other elements, such as indigenous culture, solitude and a sense of adventure were also important. A memorable experience, then, is most likely one where visitors have a sense of satisfaction with each of these dimensions. In Phase 2, visitors were given a questionnaire to identify the importance of these dimensions, and six were of primary significance: Serenity/Freedom, Challenge/Adventure, Naturalness, an Arctic Experience, Learning/Appreciation, and Spirituality. While other dimensions were also scored, they were not as important as these six.<sup>6</sup>

While these are the primary dimensions visitors currently seek, they are not necessarily *what* should be provided, thus separating the descriptive component from the prescriptive one. Based on a discussion of legislative mandates, the research and PCA program direction, there was a consensus to provide opportunities for these experiences. At the workshop, managers were asked if these dimensions were what should be provided. There was a general discussion and consent to provide opportunities for these dimensions. However, we note that given a decision to manage the parks and the setting attributes that facilitate these dimensions, setting conditions for the other dimensions would be very similar. For example, managing ANP to promote opportunities for Challenge/Adventure would mean similar actions to addressing Risk/Safety dimensions.

### **Indicators and Indicator Terminology**

Given a decision to emphasize the six dimensions, what variables could be used to determine if visitors were experiencing them? This question was the central focus of the workshop. In the remainder of this report, we adopt the PCA monitoring protocol terminology concerning indicators and measures. The entire visitor experience is termed an “indicator” while the individual dimensions are termed “measures” The sum, or a some type of mathematical combination of the measures (of

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<sup>6</sup> An additional alternative analysis of the same data by Watson identified five similar dimensions: the Arctic Experience, 2) Challenge & Accomplishment, 3) Feelings of Freedom & Isolation, 4) Connection with Nature, and 5) Learning & Appreciation.

**Table 2. Raw measures of experience dimensions identified in Workshop.**

<b>Experiential Dimension</b>	<b>Measure</b>
<i>Learning/Appreciation</i>	Key messages understood Self identification if learning occurred Knowledge of relationship/history of Inuit and their land Length of stay in neighboring communities Opportunity to learn about natural and cultural history
<i>Spirituality</i>	Self-report of transformation, personal development, experienced a spiritual dimension
<i>Naturalness</i>	Infrastructure footprint Quality of pre-trip information
<i>Arctic Experience</i>	Evidence of visitor impacts along trails Were expectations of biophysical conditions appropriate? Encounters with other people Infrastructure footprint Quality of pre-trip information Visitor perceptions of experience Interactions with Inuit Sighting of Arctic-specific wildlife Sense of isolation
<i>Adventure/Challenge</i>	Encounters with others Self-report of amount of physical and emotional challenge experienced
<i>Freedom/Serenity</i>	Self-report of how much freedom was experienced Self-report of feelings of constraints by park rules and regulations



Measures are the specific variables that are periodically assessed to indicate if specific experiential dimensions are being achieved.

dimensions) would be termed “indicators” in this protocol.

Following this discussion, workshop participants broke into several groups, each with the responsibility of identifying potential measures of a particular experiential dimension. In this task, participants were asked to brainstorm potential measures, not to test these against the functional and design criteria identified earlier. This was done to maximize the creative potential of the group.

The raw indicators identified during this process are shown in Appendix D. The tables display the “raw” (unmodified) suggestions made in each of the groups about what *might* serve as a measure of the specific experiential dimension. In making such identifications, emphasis was placed on potential measures rather than evaluating them for their suitability, validity and feasibility. Further discussion of the dimensions identified additional potential indicators which are included in the tables.

Following this initial identification of measures, workshop participants were asked to reduce this list by “voting” with adhesive dots for those measures that appeared to meet the functional and design criteria identified earlier. The task was to identify 3-5 measures for each dimension that would most likely meet these criteria. The reduced set of indicators is shown in Table 3.

## **Monitoring**

Monitoring may be defined as the periodic and systematic measurement of key variables that measure each of the dimensions. The purpose of monitoring is to provide the feedback needed to ensure that values are being sustained, objectives are being achieved, and management actions are effective. Identification of measures is the first step in this process, but must be followed by a formally established monitoring plan. The workshop considered a monitoring framework and used



**Table 3. Suggested Monitoring Protocols for Measures Identified in Workshop.**

Measure	Who	What	Where	When	How
<b><i>Evidence of visitor impacts along trails</i></b>	ANP Staff	Trail profiles where there is more than one “parallel” trail form a distance of 3 meters or longer	Designated areas along Ayakashuk Pass Trail that are vegetated	Annually, during visitor use season	Identification of measures is the first step in this process, but must be followed by a formally established monitoring plan (Martin 1990).
<b><i>Self-report of feelings of constraints by park rules and regulations</i></b>	All Visitors	Self-report	Park Office	Deregistration	Responses to the following questions: I felt constrained by Parks Canada regulations I felt free to change plans I felt a sense of freedom in the park I felt Parks Canada made me aware of opportunities
<b><i>Self-report of amount of physical and emotional challenge experienced</i></b>	All Visitors	Self-report	Park Office	Deregistration	Responses to the following questions: The trip was physically challenging The trip was emotionally challenging Expectations and actual experience of remoteness Sense of adventure
<b><i>Arctic Experience</i></b>	All Visitors	Self-report	Park Office	Deregistration	Responses to the following questions: Perceptions of interactions with Inuit Sighting of arctic specific wildlife Evidence of cultural features Sense of isolation Change in plans because of weather Length of stay before and after visit to park
<b><i>Opportunity to learn and appreciate nature and culture</i></b>	All Visitors	Self-report	Park Office	Deregistration	
<b><i>Humility/Spirituality</i></b>	All Visitors	Event in trip triggered by nature	Park Office	Deregistration	Responses to question # 38, 74, 56 and 79 on visitor questionnaire
<b><i>Opportunity to learn/develop/demonstrate arctic travel skills</i></b>	All visitors	Self report of trip skills	Park office	Deregistration	Self report check off of what skills visitor developed/demonstrated





*While management facilities intrude into naturalness, visitors recognize and accept the necessity of their presence.*

it to develop protocols for a few of the selected indicators as prototypes for a more formalized monitoring plan. The protocol establishes the following for each indicator:

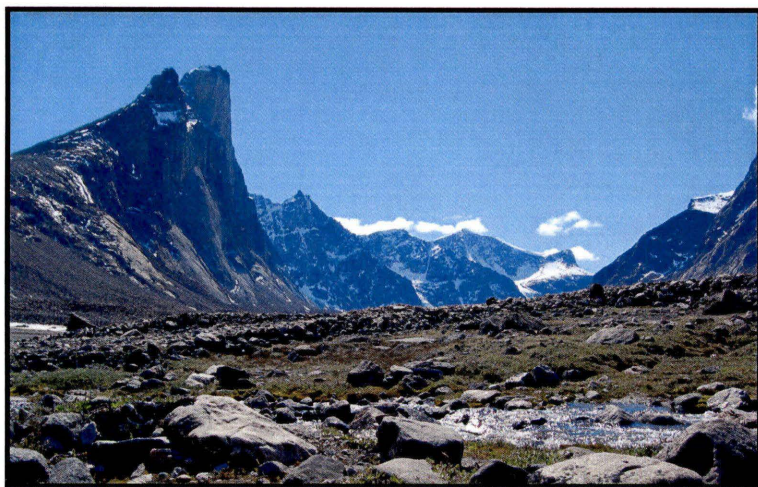
1. *Who* – the responsible manager or the source of the data
2. *What* – a more explicit definition/description of the indicator, such that it includes instructions for the measurement
3. *Where* – the specific location where the monitoring is to take place
4. *When* – the time of year for the measurement and its frequency
5. *How* – the specific measurement approach.

The group then applied this protocol to several biophysical and social indicators, again, more as exemplars than as the actual monitoring plan. While not all five elements of the protocol were established explicitly for each indicator, enough was done to provide a model for other indicators that would be used. The draft monitoring protocols are shown in Table 4..

### **The Way Forward**

The workshop represented the culmination of several years work, work conducted collaboratively among Parks Canada Agency, The University of Montana and the Aldo Leopold Wilderness Research Institute. The research and the workshop have provided an excellent foundation for implementation of monitoring and management regimes that will protect and sustain the important and unique values of ANP, and to a lesser extent, QNP. Yet, the outputs of the research and the workshop are just the beginning of a more thorough management regime. There are two important elements that form the pathway forward from here.





*While this project identified potential measures of wilderness experiences, the way forward--what to do next--is also an important component of sustaining park values.*

First, Nunavut Field Unit needs to implement a regime that will use and incorporate the findings of this three-phased research. It is an opportune time because of the program direction of PCA to create opportunities in its parks for “memorable experiences”. The opportunities offered by the arctic national parks can truly be memorable in every sense of the term. To many, they undoubtedly represent a “once in a lifetime” experience, and offer, as the research on visitor experience in the parks shows, opportunities and dimensions that cannot be found elsewhere.

This pathway requires not only decisions about what experience dimensions should be provided for within the park, but also how to manage for them (in terms of identifying important attributes that facilitate or hinder their attainment and making decisions about them as needed), the monitoring protocol appropriate for understanding what is happening on the ground, and a mechanism for evaluating monitoring results and adapting management as needed. This adaptive management regime has been implemented in a number of parks and is consistent with agency program direction.

The second pathway forward that discussed was to publish the findings of the workshop as a joint publication involving Parks Canada, The University of Montana and the Aldo Leopold Wilderness Research Institute. The objectives of the publication would be to archive the research and development program outlined here, to publicize the type of research and development logic used, and to encourage others agencies to engage in a similarly structured project.

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## **Appendices**

Appendix A	Workshop Participants
Appendix B	Workshop Agenda
Appendix C	Workshop Notes
Appendix D	Raw Indicators Identified



## Appendix A

### Workshop Participants

Last Name	First Name	Organization
McCool	Stephen	University of Montana
Watson	Alan	Aldo Leopold Wilderness Research Inst.
Lachapelle	Paul	University of Montana
Gertsch	Frances	National Parks Directorate
Pena	Kira	Nunavut Tourism
Sahanatien	Vicki	Nunavut Field Unit
Gosselin	Heather	Nunavut Field Unit
Sheedy	Carol	Eastern Canada Parks
Seale	Elizabeth	Nunavut Field Unit
Jager	Ed	Visitor Experience Team
den Otter	Michael	Mountain Parks
Grigel	Frank	Western Canada Service Centre
McCanny	Stephen	National Parks Directorate
Levick	Peter	External Relations Branch
Evans	Brian	Strategy & Plans
Bundegaard	Maureen	Nunavut Tourism
McKay	Kelly	University of Manitoba/Parks Canada
Tompa	Julie	Atlantic Service Centre
Payne	Bob	Lakehead University
Glaspell	Brian	US Fish & Wildlife Service
West	Duane	Office of the DG, West & North

## Appendix B

### Workshop Agenda

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#### Final Agenda

#### Visitor Experience Indicators Workshop

June 28 and 29, 2005 in Iqaluit Nunavut

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#### June 27

- 15h00      **Tour of the Legislative Assembly** (big blue building downtown)  
Meet in the lobby of the building. Tour will be 30 to 45 minutes.
- Barbeque at Sylvia Grinnell Territorial Park (*No alcohol*)**
- 17h30      Pick-up at Accommodations by the Sea
- 17h35      Pick-up at Kajaarvik B&B
- 17h40      Pick-up at Sedna B&B
- 17h50      Pick-up at the Government of Canada Building (red building next to legislature)
- 18h00      Drop-off at Sylvia Grinnell Territorial Park
- 20h15      Pick-up at Sylvia Grinnell Territorial Park & drop off at B&B

#### June 28

At the Government of Canada Building  
(It is the big red building downtown next to the legislative assembly.)

- |       |   |  |
|-------|---|--|
| 08h30 | Welcome & Introductions<br>Introduction to the Workshop   | Frances Gertsch<br>Steve McCool<br>Alan Watson                           |
|       | Break<br>The Arctic/Mountain Parks Context for Managing<br>Wilderness Opportunities             | Carol Sheedy<br>Stephen McCanny<br>Michael den Otter<br>Vicki Sahanatien |
| 12h00 | Lunch   |  |
| 13h00 | Discussion of Dimensions of Visitor Experience<br>Initial Identification of Indicators<br>Break | Steve McCool<br>Steve McCool   |
|       | Presentation & Discussion of Findings   | Frances Gertsch  |
| 18h00 | Country Food Dinner (\$25 to \$30 cash)<br>Location: Accommodations by the Sea (House # 2462)   |  |

#### June 29

At the Government of Canada Building  
(It is the big red building downtown next to the legislative assembly.)

08h30	Overview of the Day	Frances Gertsch
	Identification of 3 to 5 Indicators	Steve McCool
	Break	
	Reporting Back & Developing a Master	
	List of Indicators	Frances Gertsch
12h00	Lunch	
13h00	Developing an Outline for a Monitoring Protocol	Alan Watson
14h30	Break	
15h00	Discussion of the Way Forward	Alan Watson Frances Gertsch

## **Appendix C**

### **Workshop Notes**

#### **Visitor Experience Indicators Workshop**

**June 28-29, 2005**

**Parks Canada Nunavut Field Office, Iqaluit, Nunavut**

**Notes taken by Paul Lachapelle**

**June 28**

At the Government of Canada Building

**Welcome & Introductions - Frances Gertsch**

#### ***Introduction to the Workshop – Elizabeth Seale***

- Welcome to Canada's newest Territory (1999).
- At this workshop, there are representatives from PC, Nunavut Tourism, Alaska and Montana.
- This workshop came about through work of management planning; a realization of a more complete understanding of visitors was needed; recognized that we need to monitor our influence and need to know what visitors are expecting and experiencing.
- We don't discuss wilderness in Nunavut as is done in the "south" but we need to understand experiences.
- We're expecting this workshop to help with management planning; "understanding visitor experiences a very high priority for PC;" this research is relevant in the big picture.

#### ***Introduction to the Workshop – Steve McCool***

Workshop purpose and goals:

1. Develop a framework for monitoring indicators of visitor experiences.
2. Identify set of potential indicators.
3. Establish outputs / set of indicators and develop initial direction about a monitoring protocol.

Structure of workshop:

1. Discussion of indicator concept theory and context
2. Review of PC context and policy
3. Review of ANP research and discussion of what is desired

4. Identification of potential set of indicators; brainstorming of most relevant and appropriate
5. Development of monitoring protocol and discussion of the way forward

**Process:**

1. Understand, develop clarity
  2. Brainstorm
  3. Evaluate and select
  4. Use experience policy, research to get to the final product
- “We need to start broad and end up narrow” in order to select indicators of experience.
  - Use research here and in PC Mountain Parks region to inform.

### **Managing for Visitor Experiences – Alan**

**Visitor experience objectives:**

- Where do we get guidance? Legislation, policies, literature, public input, other areas or research.
  - Examples of legislation: include National Wild and Scenic Rivers Act “essentially primitive,” Wilderness Act, etc.
  - We need to go back to enabling legislation to see intent and find direction.
  - Legislation mentions recreation specifically, consequently there is need to provide for those experiences.
  - Policies outline quality recreation-related experiences: “number one question in wilderness.”
  - Literature reviews include issues of crowding, solitude, spiritual benefits, etc.; some literature looks more holistically than just experiences.
  - Public involvement includes LAC process, collaborative planning and scoping with specialists.
  - Research in many areas:
    - Juniper Prairie:* The idea was to “go into it with a blank slate and not with what legislation tells us, but what is happening there.” We described experience in great detail.
    - Frank Church:* Sought to understand affects of management on experience.
    - Gates of the Arctic:* Managers prioritized research issues and visitor experience came out No. 1. In-depth research of “arctic” experience.
    - Wrangell:* Looked at conflict and experiences, outcomes and expectations.
    - Denali:* Recreation survey expanded to commercial service providers.
- Now we are working in Nunavut: perhaps this research will let us articulate the PC legislation better.

## **Visitor Experience Context - Carol Sheedy**

- Great challenge is understanding visitor experiences since experiences are very personal.
- Current PC focus is on understanding memorable visitor experiences and related issues of personal fulfillment and growth.
- Key question: how do you assess the sense of fulfillment or personal growth?
- Context: this presentation given many times; new direction in PC identified 18 months ago between DG's regarding the presence of the visitor in planning and reporting.
- There are three fundamental components of PC mandate: education, protection, and memorable visitor experiences. These are symbiotic elements. We now have overarching vision that integrates these three elements; recognizing they are not independent components but interrelated.
- We have many resources: historic, cultural, and natural sites and we are focusing on all three.
- Focus on visitor experiences is an indication of a change of mindset in PC; we wanted to send the message that we have changed / intensified focus on visitor perspectives.
- Challenge: "Can't really define what visitor's memorable experiences will be." We can only create opportunities.
- We are striving for a partnership between PC and visitors. We are a team of only 5 people.

Three documents that direct us:

1. The PC mandate: "appreciation and enjoyment in ways that ensure their ecological and commemorative integrity."
2. PC Charter: We are guardians, guides, story tellers and partners – facilitators of experience.
3. Corporate Plan, Program Activity 4: comes out every year, refines PC goals. Focuses on providing quality experiences that are relevant and representative.

Key element: Relevance results from enjoyable and meaningful experiences and is essential for long term sustainability and political support. The challenge is how to engage constituency and seek information about the places that are relevant and result in a positive experience.

Why enhance focus on visitor experiences?

- Visits have resulted in memorable experiences for decades.
- Memorable experiences result in relevance.
- Relevance is essential.

What are visitor experiences? Three characteristics:

1. Personally realized:
  - Participatory and engaging; sensory.
  - Based on preferences and expectations.
  - Built on quality services.
  - Revealed over duration of visit; evolution of whole visit.
  - Perception of interest being met.
2. Memorable:
  - Strong sensory interaction.
  - Transforming.



- Contact with someone knowledgeable.
- Often enjoyable.
- Recalled and shared with others.

### 3. Shared Outcome

- Between attraction provider and the visitor.
- Bragging rights; transforming (ex. Vietnam memorial).

Defining emotional and physical aspects:

Physical: PC doing a good job in this aspect.

- Built on tangibles such as information, programs and services, staff, facilities.

Emotional: How do we provide for this?

- Engage all the senses that are personalized and individually reasoned.
- An escape from the ordinary.
- Connection with staff.
- Sense of personal growth and accomplishment.
- Memorable.
- We need to focus on understanding this emotional side; not just on visitor satisfaction but on fulfillment.

Visitor Experience Model:

- Visitor experience is made up of contribution of many partners; we have to have the visitor come to the table.
- Time is right.
- Changes in demographics.
- Consumer attitudes.
- New market niches.
- Marketing.

Visitor experience vision 2015:

- Move from passive provision of services to proactive facilitation of memorable experiences.
- New funding and new opportunities; how will we know if vision has been adopted?
- More research needed, ex. socioeconomic.
- Significant investment in training.
- Achieving the vision through visitor research, planning, and capacity at three levels of PC organization from the nation to field.
- Building a memorable visitor experience; basis is market research to understand market needs, expectations and interests.
- Enhances opportunities through interpretive programs, guides etc.

Key question: How to identify key indicators that define experiences.

### **Discussion / comments during or after Carol's presentation:**

Alan: One example about difficulty of predicting experiences: flight sightseeing in Denali; given our knowledge, we don't predict very well as it's very difficult. Also, in native context, we describe experiences in western terms. We need to recognize that there are some things we can't measure very well.

Steve McCool: Experiences are intensely personal; wide diversity of feelings. Also must consider a measure of "central tendency." Need to look at what is "embedded" in the "sequence of interactions with landscape." We need to ask, how do you interact with landscape? Obtain "dimensionality." There is a problem of linking things together. There is a lot of uncertainty as x doesn't necessarily lead to y; not a deterministic model. We need to recognize that research is ongoing, its "forever."

Kelly: Summary comments: we sometimes discount theory, but the presentation outlines how we define leisure as multi-phasic. Satisfaction belongs with experiences not service attributes.

Brian G: Need to realize that experience is part of larger context of people's lives.

Alan: Relational marketing research is helpful. Looks at influences on relationships. Agencies are stewards of relationship; problem area is understanding relationships.

### ***Selecting Indicators for Visitor Experience Objectives and Monitoring*** **- Steve McCool**

What do we mean by indicators?

- Measured variables that reflect a set of conditions (ex. body temperature).

Major purposes:

- State of current conditions; what is going on out there?
- Effectiveness or performance of management actions; how effective was a management action (ex. closed campsites = improved ecological conditions).
- Predictions of future conditions or trends (ex: CO<sup>2</sup> concentration).

Why indicators?

- Scientific uncertainty; we don't know that x leads to y, more probabilistic than deterministic.
- Understand context / think about the future.
- Know if goals are being met (ex. close campsites with increase impacts).

### Types of indicators

- Setting conditions; attributes that facilitate or hinder attainment of experiences (ex. encounters at campsite or solitude).
- Outcomes; the experience itself (ex: how much solitude was attained?)
- Threats; driving forces that may endanger conditions, and are things not necessarily on-site (ex: aircraft overflights, price of oil affecting price of flights).

Major questions about which indicators should be selected:

- What do we want to measure?
- What function does the indicator serve?
- How does the indicator fit in and inform management?
- Can a standard or limit of acceptability be established?

Attributes of good indicators (design criteria):

- Quantifiable; leads to common meaning (ex: not “it was a good trip”).
- Reliable; inter-observer consistency.
- Administratively feasible; efficient, effective, and simple.
- Sensitive to management and change; (ex: not the number of state parks in a state b/c it doesn’t change).
- Appropriate scale; measured at correct spatial and temporal scale .
- Relevant to visitor experiences; need to consider when we think about justification; leads to probabilistic linkage (ex. if we do x, does it lead to y?)
- Related to human-induced change.

### Discussion / comments during or after Steve’s presentation:

Maureen: Problem with quantitative measures is, how do we measure a “good” experience?  
Problem with trying to measure.

Steve McCool: Agrees, often too much reductionism; somehow we have to get away from more global measures.

### Monitoring Terminology - Steve McCanny

Monitoring language:

- Ecological integrity measured by index (ex. green, red or yellow).
- Measure (ex: change in songbird population)
- Threshold (ex: 30% of species in concerned status)
- Targets; desired conditions (ex: 95% of a population).

## **The Mountain Park Research and Results - Michael den Otter**

### **Mountain Park Visitor Experience Monitoring**

- Research on 2003 patterns of visitor use, profiles and behavior.
- Four clusters identified.

#### **Indicators:**

1. Human use.
2. Quality of experience; (ex. crowding; we have desire to know about crowding in Lake Louise).
3. Learning and engagement (ex. knowledge of messages).
4. Stewardship and support (ex. volunteerism).

#### **Summary:**

1. Need to clearly define what a quality visitor experience is including learning experience.
2. We need to continue index forming.
3. We need to clearly identify targets.

## **The Arctic Parks Research and Results – Paul**

There are two phases to this research:

Phase 1 was qualitative involving face-to-face interviews with visitors, Inuit in local communities, and scientists.

11 dimensions were identified for visitors to Auyuittuq NP.

1. Adventure / Challenge
2. Arctic Setting
3. Culture
4. Freedom
5. Humility / Spirituality
6. Learning
7. Naturalness
8. Remoteness
9. Risk/Safety
10. Scenery
11. Wildness

The data set contained rich text about each of these dimensions, however, it should be noted that the dimensions are relational.

Phase 2 involved a quantitative methodology using a survey questionnaire aimed at visitors leaving the park. Major findings include:

- Respondents are primarily from Canada, who are on average middle aged (42 years), and highly educated.
- Nearly half of respondents have limited backpacking experience (ten prior backpacking trips or less in their lifetimes) and are visiting Auyuittuq NP for the first time.

- Group size varies averaging nearly five persons, but with over a third of the groups being two persons or less.
- Nearly 20% of respondents are part of commercially-guided groups. Commercially-guided visitors are slightly older and stay in the park several days longer than independent visitors.
- Respondents stay an average of seven nights, although there is great variation: over 30% staying three nights or less and nearly 25% staying between 11 or more nights.
- Six underlying dimensions of the visitor experience were generated from the principal components analysis. These dimensions are Serenity/Freedom, Arctic Experience, Challenge/Adventure, Naturalness, Learning/Appreciation and Spirituality.
- Many of the potential management actions were viewed as unnecessary and would reduce the enjoyment of a future visit.
- Among the most prevalent management actions that respondents indicated would greatly or moderately reduce their enjoyment of the park were "Requiring the use of established campsite areas" and "Developing established campsite areas."

#### Summary:

- We identified six principal experience dimensions:
  1. Serenity / Freedom
  2. Arctic Experience
  3. Challenge / Adventure
  4. Naturalness
  5. Learning / Appreciation
  6. Spirituality
- For these six dimensions, we found two distinct clusters of visitors who view these dimensions differently. However, the two clusters are not significantly different except for the Spirituality dimension.
- There were issues related to the potential for statistical analysis on this data set because of the small sample size.
- There appears to be little support for regulations designed to reduce total visitation, regulate or restrict camping or substantially increase infrastructure.

#### Discussion of Dimensions of Visitor Experience – Steve McCool

- Description of Phase 1 dimensions.
- Phase 2 results: What we are dealing with is a "very homogenous group."

#### Assignment:

1. Brainstorming
2. Listing
3. Clarification

Key Question: what are best possible measures of these dimensions of a visitor's experience?

## **Discussion:**

Steve McCanny: Need to select from items describing dimensions in factor analysis.

Steve McCool: We also need to define an underlying construct for the indicators.

Carol: To clarify, “dimensions” are “measures”; If we focus on issues and linkages identified in regression, such as the physical developments, we will need to have more targeted questions on indicators.

## **List of Brainstorming and Listing Exercise**

(in the below lists, I’m not sure what the “ \* ” represents)

### **Learning/appreciation**

- Ability to brief new park arrivals – ability to tell others about the park – orientation with visitors
- Key messages understood – corporate approach – learning in general
- Self id if learning occurred
- Opportunities to view/experience unique natural features/aspects
- Opportunities to explore new places and cultures
- Develop new skills / abilities
- Express changes in hiking behaviors in future
- Feedback – what learned thru experience
- Scenic beauty – appreciation of assessment
- Felt sense of freedom from normal routine
- Doing something new in new context
- Understanding ecosystems
- Valuing ecosystems (appreciation)
- Use of pre-trip materials – satisfaction
- Visitor feedback on usefulness of pre-trip materials
- Personal growth
- Knowledge of relationship / history Inuit and land
- New understanding of the place
- Test on knowledge of park

### **Spirituality**

- Experience inspired by nature
- Personal relationship in nature
- Humility
- Changing attitude to surroundings
- Frequency of recording this dimension is important
- Relationship to place
- Sense of awe relative to landscape/something bigger
- Humility - changing behavior or reinforcement after leaving – influence of spiritual experience in park
- Self-report-transformation – development – experience of spiritual connection
- Uncorrupted (lack of development, respect for...)

- Change of philosophy/paradigm
- Measure by % of population experiencing this dimension

### **Adventure / Challenge**

- Public safety incidents
- Assessments of rescue
- Sense of remoteness
- Opportunities for activities
- Sense of accomplishments – personal growth/challenge
- Excitement/fear
- Expectations vs. reality
- I was out of my comfort zone
- Influence of infrastructure-adequacy
- External/objective review of level of challenge
- Sense of personal interest being met
- Sharing experience with other people
- Why did you come here? Did you succeed?
- Recognition factor – bragging rights – 1) achievement 2) in National Park
- Physically challenging

Kelly: Some of these dimensions could be measured with concept “flow.”

### **Freedom / Serenity**

- Encounters
- Outside influences (overflights)
- Awe in landscape
- Sense of connection and cultural community
- No social pressures
- No scheduling pressures
- Neg impact from mgmt actions
- Other visitor behaviors
- I came to enjoy quiet and serenity
- Presence of new audiences
- Ease of understanding
- Weather – changes serenity
- Restrictions/closures/rules/regs
- Connection to natural world
- Enough info to support appreciation
- Reflection
- Final feeling at the end of trip
- Sense of peace
- Opportunities for pleasant discoveries/surprises
- Exploring one’s interests
- Wildlife viewing

- I accomplished what I came to do
- I am changed/transformed
- Perceptions of opportunities for activities

Steve: What about access to information as an indicator?

### **Arctic Experience**

- Do you feel you had an arctic experience?
- Did the perception of time and day change throughout trip
- Change in trip due to weather
- Number of contrails viewed/aircraft?
- Awareness of what to expect
- Were you're expectations met based on PC pre trip info? – tied to ecological / physical elements of arctic – wildlife
- Do you have a better understand of arctic en after trip?
- Did you feel isolated – measures – visitor use density – encounters with other visitors?
- Interactions with Inuit – evidence of Inuit culture

### **Naturalness**

- Camping practices – evidence of campsite impacts – social trails – practicing LNT
- Evidence of garbage, exotic species – footprint of infrastructure
- Is naturalness important to you?
- Are you willing to pack out human waste/ garbage?
- Encounters / Signs of wildlife

**JUNE 29, 2005**

### **Identification of 3 to 5 Indicators – Steve McCool**

Question: If we were to come up with indicators for next year, what would we recommend / suggest?

Before we put up dots, we need to consider, what would be a good indicator.

Considerations:

1. Relevancy to dimension
2. Ease of measurement
3. Reliability
4. Administrative feasibility
5. Sensitivity to management

Other Comments:

Alan: We need to ask when we look at lists: Are these important dimensions? Is the dimension something we want to protect? Should we have blue dots? We need to capture that.



Kelly: Simplicity; if it isn't simple to do, it won't get done.

Brian E.: Efficiency relates to more than one dimension.

Kelly: Need for measures to be quantifiable.

Maureen: Is quantifiable a subset of ease of measurement?

## **NEW LIST**

### **Naturalness (Connection with Nature)**

- Presence of exotic species
- Evidence of garbage
- Evidence of visitor impacts at campsites and trails
- Air quality/water quality (EI indicator)
- Temperature change (Trends)
- Infrastructure footprint
- % of visitors that think that naturalness was important
- Visitor "leave no trace" practices/skills
- Willingness to pack out human waste / garbage
- Signs of wildlife
- Expectations

### **Arctic Experience**

- Were expectations of the ecological / physical conditions appropriate?
- Quality of pre-trip info
- Were expectations met?
- Visitor use density
- Encounters with other people
- Did you feel isolated?
- Evidence of cultural features
- Interactions with Inuit
- Sighting of arctic specific wildlife
- Infrastructure footprint
- Pre/post appreciation / understanding of the arctic environment
- Number of contrails / aircraft viewed
- Change in trip behavior due to weather
- Did the perception of time and day change throughout trip
- Do you feel you had an arctic experience?

### **Freedom / Serenity**

- Formal rules / regs / policies
- Transformation / reflection
- Influences by visitors / external

- Connection to nature / culture
- Escape
- Opportunity (surprise, discovery, activity)
- Accomplishment
- Ease of understanding / enough info to support appreciation
- Sense of peace

#### **Adventure / Challenge / Accomplishment**

- Public safety
- Elements of challenge (e.g. remoteness, physical challenge)
- Personal transformation (sense of accomplishment)
- Elements of interaction (sharing, bragging)
- Expectations vs. realities

#### **Humility (place in nature)**

- % of visitor populations scoring + on this dimension (using the original questionnaire items)
- % change in ethical behavior intentions (e.g. new env paradigm, ethics measures)
- % of visitors self-reporting on + changes in respect for nature
- % of visitors demonstrating + change in environmental sensitive behavior after visit
- % of visitors recognizing their relationship with nature/the park

#### **Learning / Appreciation**

##### **Greater Understanding**

- key messages (park, ecosystems)
- valuing ecosystems
- Inuit / land relationships
- Ability to tell others about park
- Test knowledge

##### **Opportunities to learn/experience**

- unique features/ aspects
- explore new places/cultures
- out of the norm/routine
- satisfaction/quality of pre-trip planning info
- behavior / activity changes (test, observations)
- % with technology (watch, cell)
- # days in adjacent community
- Self ID of learning

##### **Landscape appreciation (scenic beauty)**

- arctic landscape as part of Canadian landscape

##### **Opportunity to learn / develop skills in a particular context (e.g. arctic travel skills)**



**Discussion / Comments during / after this exercise:**

Maureen: Learning is an important dimension.

Mike: Would like to revisit categories since all dimensions are related to arctic experience. Need to look at public safety issues. Question: Is spirituality something we want to measure and monitor and will it affect management?

Julie: Arctic experience is an over-arching dimension; it's a cross-cutting dimension, so how do we measure?

Liz: Some visitors surprised by minimal capacity for search and rescue for instance. We need to look at issues related to expectation.

Bob: Many dots on learning and appreciation; I'm "twitchy" about humility.

Duane: Do we want to measure arctic experience? I'm happy with how things are sorting out.

Brian G.: Appearance of arbitrariness is ok as long as we can link dimensions to indicators.

S. McCanny: We shouldn't measure learning; glad to see humility has dots.

Alan: Culture will be interesting to deal with.

Kelly: Need to look at what is unique and what is common or is it a matter of intensity of the various dimensions.

Ed: Notes the value of pre trip information. Regarding arctic experience, do we ask if visitors had a "Banff" experience?

Frank: Need to look at the qualities that we think are important and ask, who is the 'we'? Does it lead to management actions? We should let indicators be driven by what visitors think is important, not what we think is important.

Carol: For many of the dots, PC has limited control over. Our challenge is how to adapt a management regime that is useful to organization.

S. McCool: Respond to Carol's comment: it's an art and science. We are making value judgments, but we are using science to inform. For example, learning about Inuit/cultural issues are not something you can mandate, but you can build into pre-trip planning. Managing for an "arctic experience" is difficult and is something we don't know quite how to define. Also, we can't manage for humility, but we know what may detract from humility and perhaps we can manage for that.

Brian E: Asking people is subjective but easy, whether qualitative or quantitative, just ask them. We, the gov't, don't control what people learn for instance, we just provide opportunities

to allow it to happen. Ultimately, we want so sophisticated an understanding; we would like to be able to predict inputs and outputs but there are limitations.

Maureen: Can't be deterministic; "lead a horse to water..." We are simply providing an opportunity to learn, etc. and when we look at it that way, it's not so intimidating.

Carol: Need to start at the right space and do what visitors say they want, not what does PC wants to measure.

Alan: Already some data being collected through registration and that's efficient. Our purpose is to identify visitor experiences and measure and represent. We need to do this for both local application and also, for broader application; not just circumpolar north but larger context. We need to ask, Did we meet that mandate? How useful has this been?

Ed: This could offer information to other parks. Some dimensions are consistent (freedom, challenge) and place-based dimensions identified too. We need to reflect on that in context of PC staff. Need to focus on visitor's point of view and balance with staff's interpretation. Need to do both qualitative and quantitative measures of experience. Keep the iterative process going. We need to measure the full spectrum of dimensions so that we don't miss something that suddenly changes.

S. McCanny: Need to use a stable set of measures, but if we can't find, that shouldn't stop us.

Frank: Stability in measures very important.

Vicki: Indicators must also be useful at local level and at global level.

Heather: We're starting with good information from research and this workshop.

Frances: I think future survey work is feasible and with Frank, we have support to do analysis.

Alan: We need to ask, what are the limitations? Should we do this every 5 years?

Mike: These same indicators apply in other parks: issues of learning, freedom, etc. Question: do we monitor everybody? Aggregating measures for learning / appreciation for instance, how do we weight different opportunities? What about different user groups? And which way is the arrow going? Up or down?

S. McCool: Another way to look at the process is to go back to management plan and also the outcomes from the research to decide what we focus on.

S. McCanny: Important for comparability across measures to create a common scale across indicators. Some are non-negotiable; not adequate to put together as an average.

Ed: Important to carry out this type of research in Mountain parks. We never ask the question: what experience do you want to have? How can this place better meet your needs or



better provide for the experience you're seeking? We want to get to the point where you tell us what you want, now we either give it or tell you to go elsewhere.

Julie: What about for those things that we can't do anything about?

S. McCanny: There has to be a reason to do the monitoring so we know if we have to take an action. Actions foreseen can be very simple.

S. McCool: In LAC, threshold is the standard; red light means you have to do something. If your standard is for example fecal coliform / liter, when do you start taking action? When it's a red light, it forces agency to act.

Alan: If we see trends, we can think through what actions we need to take. We tend to think in pretty light handed approaches.

S. McCool: History is that agencies use a heavy handed approach.

Brian G: The agencies need to take the next step and put policies in place, In Gates, we got to almost this point and then it stalled out. It's a tragedy.

Brain E. Process is quite helpful. My interest is corporate, parliament and in how to get more money. Indicators can be endless. What are enough indicators to give you enough information to work on? It probably varies by park. It looks complex now but in 10 years it will be 2<sup>nd</sup> nature. Information is important for management; for accountability and transparency even if it's not relevant.

Liz: Monitoring needs to be consistent; this process doesn't have to be invisible. It's ok if visitors to see this process. That's ok.

## ***Next Steps - Carol***

Challenge right now:

- We are lacking tools, understanding etc, even though we are trying to put tools and frameworks in place. Often, we develop models in south then import to north so its good that this workshop occurred in north. It provided a feeling for participants of a reality/mindset of the north. Process will be helpful in south too.

I've learned:

- Confirmation that research is fundamental. We don't have much information on visitors and this would've been a difficult workshop without research.
- This is the beginning of a long process; it will take 10 years +. E.I. has been set up for 3-5 years but this will take us a long time; We will have to take interim steps.
- We need to ask, What will model look like?

- One challenge, not to copy EI framework. Indicators have to have a dual outcome: What does PC want? And what does Visitor want? We can't dictate, but need to recognize what we can offer?
- Another challenge, it's relatively easy to develop indicators for E.I., but for visitors, its not possible to develop long term indicators since visitor experiences will change. We'll need to continually revisit this.
- Visitor experience is very personal. We do not have right to make judgement call on validity of experiences. PC is entering into era of culture change; we can't negate that we need variety of tools to develop management plan guidelines.
- Upcoming meeting scheduled to discuss the development of performance indicators. One in July one in August. Need to identify the common elements for various sites. Later, we have scheduled a large national workshop with over 200 people in the organization to find a common understanding of visitor experience and make recommendations regarding issues I've brought up.

### **Discussion:**

Brian E: Key question is: What are expectable behaviors in parks? Who decides? By what process?

Ed: We need to make some value judgements, that's where it becomes a complex issue. We have to remember organizational context in how decisions are made; need to decide if/ how decisions are made based on organizational context. We need to except and celebrate visitor experiences and diversity, within the limits of PC mandate.

Julie: What is the role of native peoples in developing indicators?

Carol: They are at the table at the national level.

Kelly: I'm impressed with the focus by PC on visitor experiences; the "pendulum has swung."

S. McCool: Have to watch making value judgements and having elitist attitudes like staff making disparaging remarks.

S. McCanny: One challenge is accommodating the demands from urbanization and new immigrants.

**Developing an outline for a monitoring protocol – Alan Watson**



### ***Discussion of the way forward - Frances***

- Workshop report and publication
- Publication through the Aldo Leopold Wilderness Research Institute
- Objective: cooperation
- Everyone that contributed will write a chapter: Due Dec. 1, 2005

## Appendix D

### Raw Indicators Identified

**Table B-1. Potential raw indicators of Learning/Appreciation**

- Ability to brief new park arrivals – ability to tell others about the park – orientation with visitors
- \*Key messages understood – corporate approach – learning in general
- \*Self id if learning occurred
- Opportunities to view/experience unique natural features/aspects
- Unique features/ aspects
- Explore new places/cultures
- Out of the norm/routine
- Satisfaction/quality of pre-trip planning info
- Behavior / activity changes (test, observations)
- Percent with technology (watch, cell)
- # days in adjacent community
- Self ID of learning
- Landscape appreciation (scenic beauty)
- Arctic landscape as part of Canadian landscape
- Opportunity to learn / develop skills in a particular context (e.g. arctic travel skills)
- Express changes in hiking behaviors in future
- Feedback – what learned thru experience
- Scenic beauty – appreciation of assessment
- Felt sense of freedom from normal routine
- Doing something new in new context
- Understanding ecosystems
- Valuing ecosystems (appreciation)
- Use of pre-trip materials – satisfaction
- Visitor feedback on usefulness of pre-trip materials
- Personal growth
- \*Knowledge of relationship / history Inuit and land
- New understanding of the place
- Test on knowledge of park



**Table B-2. Potential raw indicators of the Spirituality dimension**

- Experience inspired by nature
- Personal relationship in nature
- Humility
- Changing attitude to surroundings
- Frequency of recording this dimension is important
- Relationship to place
- Sense of awe relative to landscape/something bigger
- Humility - changing behavior or reinforcement after leaving – influence of spiritual experience in park
- Self-report-transformation – development – experience of spiritual connection
- Uncorrupted (lack of development, respect for...)
- Change of philosophy/paradigm
- Measure by % of population experiencing this dimension

**Table B-3. Potential raw indicators of the Adventure/Challenge dimension**

- Public safety incidents
- Assessments of rescue
- Sense of remoteness
- Opportunities for activities
- Sense of accomplishments – personal growth/challenge
- Excitement/fear
- Expectations vs. reality
- I was out of my comfort zone
- Influence of infrastructure-adequacy
- External/objective review of level of challenge
- Sense of personal interest being met
- Sharing experience with other people
- Why did you come here? Did you succeed?
- Recognition factor – bragging rights – 1) achievement 2) in National Park
- Physically challenging



**Table B-4. Potential raw indicators of the Freedom/Serenity dimension.**

- Encounters
- Outside influences (overflights)
- Awe in landscape
- Sense of connection and cultural community
- No social pressures
- No scheduling pressures
- Neg impact from mgmt actions
- Other visitor behaviors
- I came to enjoy quiet and serenity
- Presence of new audiences
- Ease of understanding
- Weather – changes serenity
- Restrictions/closures/rules/regs
- Connection to natural world
- Enough info to support appreciation
- Reflection
- Final feeling at the end of trip
- Sense of peace
- Opportunities for pleasant discoveries/surprises
- Exploring one's interests
- Wildlife viewing
- I accomplished what I came to do
- I am changed/transformed
- Perceptions of opportunities for activities
- Formal rules / regs / policies
- Transformation / reflection
- Influences by visitors / external
- Connection to nature / culture
- Escape
- Opportunity (surprise, discovery, activity)
- Accomplishment
- Ease of understanding / enough info to support appreciation
- Sense of peace



**Table B-5. Potential raw indicators of the Arctic Experience dimension**

- Do you feel you had an arctic experience?
- Did the perception of time and day change throughout trip
- Change in trip due to weather
- Number of contrails viewed/aircraft?
- Awareness of what to expect
- Were you're expectations met based on PC pre trip info? – tied to ecological / physical elements of arctic – wildlife
- Do you have a better understand of arctic en after trip?
- Did you feel isolated – measures – visitor use density – encounters with other visitors?
- Interactions with Inuit – evidence of Inuit culture
- Were expectations of the ecological / physical conditions appropriate?
- Quality of pre-trip info
- Were expectations met?
- Visitor use density
- Encounters with other people
- Did you feel isolated?
- Evidence of cultural features
- Interactions with Inuit
- Sighting of arctic specific wildlife
- \*Infrastructure footprint
- Pre/post appreciation / understanding of the arctic environment
- Number of contrails / aircraft viewed

**Table B-6. Potential raw indicators of the Naturalness dimension**

- Camping practices – evidence of campsite impacts – social trails – practicing LNT
- Evidence of garbage, exotic species – footprint of infrastructure
- Is naturalness important to you?
- Are you willing to pack out human waste/ garbage?
- Encounters / Signs of wildlife
- Presence of exotic species
- Evidence of garbage
- Evidence of visitor impacts at campsites and trails
- Air quality/water quality (EI indicator)
- Temperature change (Trends)
- Infrastructure footprint
- % of visitors that think that naturalness was important
- Visitor “leave no trace” practices/skills
- Willingness to pack out human waste / garbage
- Signs of wildlife
- Expectations